## **Dry Year Impacts Agriculture Sectors**

Despite a few additional days of showers during the year, the absence of consistent rainfall continued to hamper agriculture again in 2000. Although the predominately trade wind weather brought cloudy days and scattered light to moderate showers to all areas, the majority of days were warm and sunny with strong, gusty trade winds. As in the previous year. crops which depend on rainfall failed to make good progress. Such crops included coffee, macadamia nut. avocado, guava, and other fruits. Pastures were also adversely affected by the lack of moisture, since they depended on natural rainfall for growth and rejuvenation. Ranchers continued to reduce their herds due to the deteriorated pastures. Although irrigated crops fared better with the stable weather and consistent water. some farms were adversely affected by both mandatory and voluntary water conservation measures implemented during the year. Despite the increase in moist periods over the previous year, the overall condition of the State was still dry, especially the leeward sections of Maui and Hawaii islands.

## January-April

The first two weeks in January were fair to good for agriculture. Days were mostly sunny to partly cloudy with light to moderate showers. Towards the end of the third week, a shear line brought dark clouds and heavy showers to the islands; followed by strong winds which further hindered field operations and damaged crops. The rains continued into the fourth week and caused some flooding in fields that were already saturated by

the previous week's rain. Weather became sunnier in February with less rain, giving farmers a chance to catch up on field activities. Despite the absence of significant rainfall, the sunny days, cool nights, and gentle winds, along with regular irrigation enhanced crop progress. March brought more sunny, dry weather which benefitted most crops. However, the prolonged dry spell caused growing concern among farmers and water officials, and water restrictions were issued. Trade wind showers falling during the end of the month brought some relief, but more rain was needed. A cold front from the northwest brought much needed rain in early April. The heavy showers hit Kauai with 4 inches of rain and moved down the island chain, dropping about 3 inches on many windward areas. Considerably lighter rains fell on leeward areas, which remained relatively dry throughout the month. Gusty winds early in the month hampered spraying and irrigation as well as causing leaf and fruit damage. A decrease in winds and shower activity created favorable weather for the rest of the month.

## May-September

The first half of May experienced gentle trade winds, light windward showers, and longer days with warmer temperatures. The remainder of the month received generally dry weather, especially in the leeward areas. Increased spraying and irrigation was necessary to maintain crop progress. Pastures and non-irrigated orchards continued to feel the adverse effects of lack of moisture. Dry, sunny

conditions marked the beginning of summer in June. Irrigated crops made fair to good progress, while pastures and non-irrigated crops remained in fair to poor condition. Light, scattered showers brought some relief, but additional rainfall was needed to replenish soil moisture. Summer rains in July brought some relief, but more rainfall was needed. Temperatures climbed into the upper 80's; occasionally reaching 90 degrees F. The remnants of Hurricanes Gilma and Hector brought some moderate to heavy showers in late August to central Oahu and windward sections of Hawaii. Leeward areas remained dry.

## October-December

The record thunderstorm on the Big Island punctuated the rainy season on November 1 and 2. Nearly 37 inches of rain fell on windward Hawaii within a 24 hour period. Ka'u macadamia nut orchards suffered the heaviest nut and tree loss due to flooding and erosion. Puna anthurium and tropical flower growers reported 30-50 percent losses due to flooding. The flood waters also damaged roads, green houses, and irrigation systems. Livestock losses of goats and some cattle were reported along with damage to barns, warehouses, and other structures. Control measures were increased to control plant diseases stimulated by the wet conditions. On a positive note, the rain brought much needed moisture to the parched areas of Kona, South Kohala, Maui, and Molokai. The remainder of the year ended with generally fair weather; leeward areas returned to their dry condition.

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